HITACHI

CIRCUIT DIAGRAMS

FOR

MODEL S-570

SCANNING ELECTRON MICROSCOPE

CONFIDENTIAL

Hitachi, Ltd. Tokyo Japan

Part No. 538-8601
YM-TF (HGT-NK)

TABLE OF CONTENTS

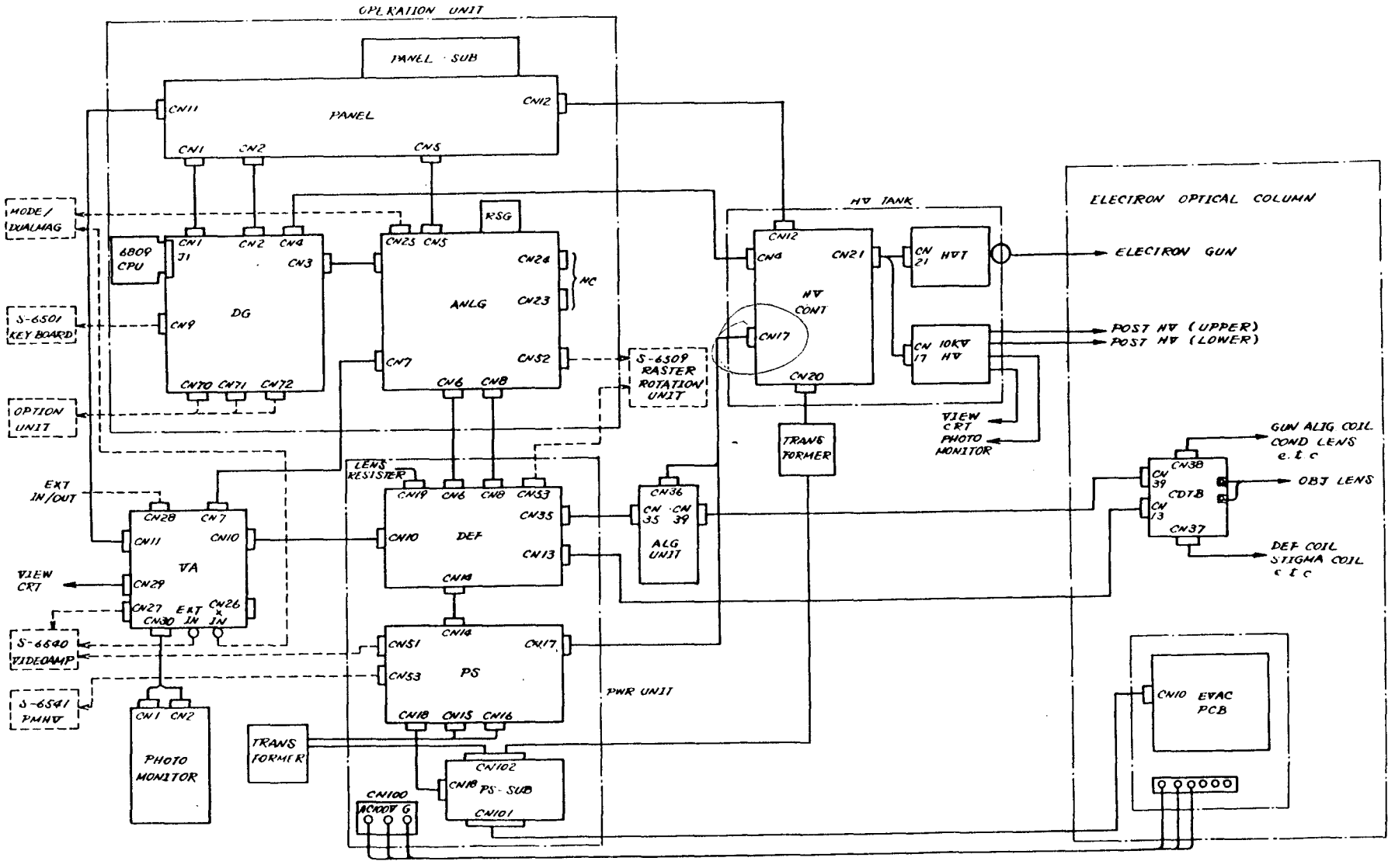
1. S-570

1-1 WIRING DIAGRAM
1-2 GND WIRING DIAGRAM
1-3 DC POWER SUPPLY
1-4 MOTHER BOARD WIRING
1-5 DIGITAL CONTROL
1-6 DATA DISPALY
1-7 CPU BOARD
1-8 ANALOG CONTROL
1-9 RAPID SWEEP GENERATOR
1-10 VIDEO AMP
1-11 HEAD AMP
1-12 DEF/LENS POWER SUPPLY
1-13 THERMISTER UNIT
1-14 ALIGNMENT UNIT
1-15 COLUMN DISTRIBUTER
1-16 30 kV HV POWER SUPPLY
1-17 10 kV HV POWER SUPPLY
1-18 EVAC SEQUENCE
1-19 STAGE LIMITTER

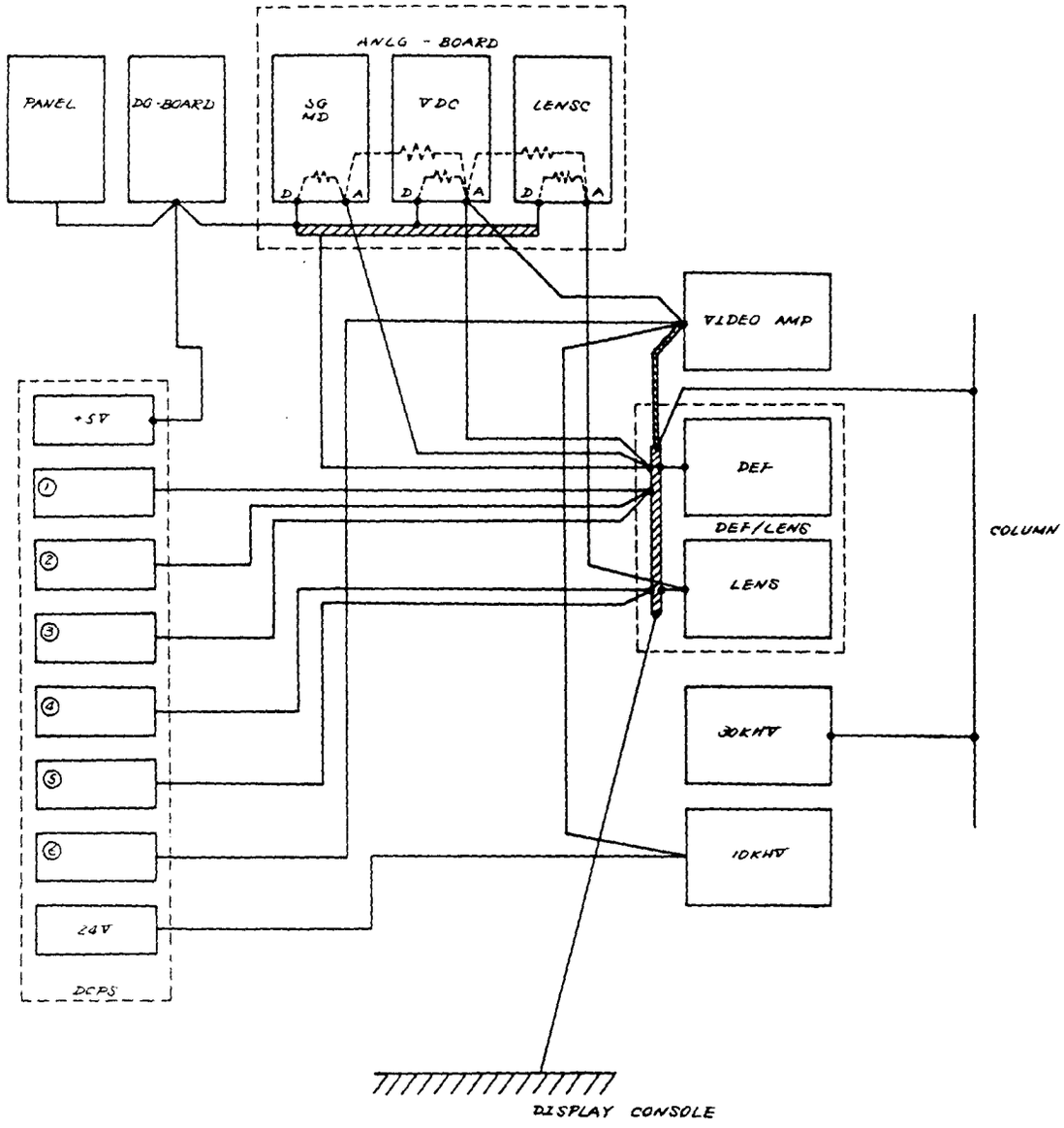
2. OPTIONAL ACCESSORIES

2-1 S-5701 DATA ENTRY KEYBOARD
2-2 S-5704 MODE/DUAL MAG UNIT
2-3 S-5707 WIRING DIAGRAM
2-4 S-5707 PC-07-01
2-5 S-5790 LaB_6 ION PUMP POWER SUPPLY
2-6 S-6509 RASTER ROTATION/DYNAMIC FOCUS UNIT
2-7 S-6540 UNIVERSAL VIDEO AMP UNIT
2-8 S-6541 DUAL PMHV UNIT
2-9 S-6542 PRE AMP UNIT

CONFIDENTIAL



1-1 WIRING DIAGRAM



POWER SUPPLY ROOT

+5V → DG-BOARD → PANEL
ANLG - BOARD → VIDEO AMP

(1), (2) → DEF

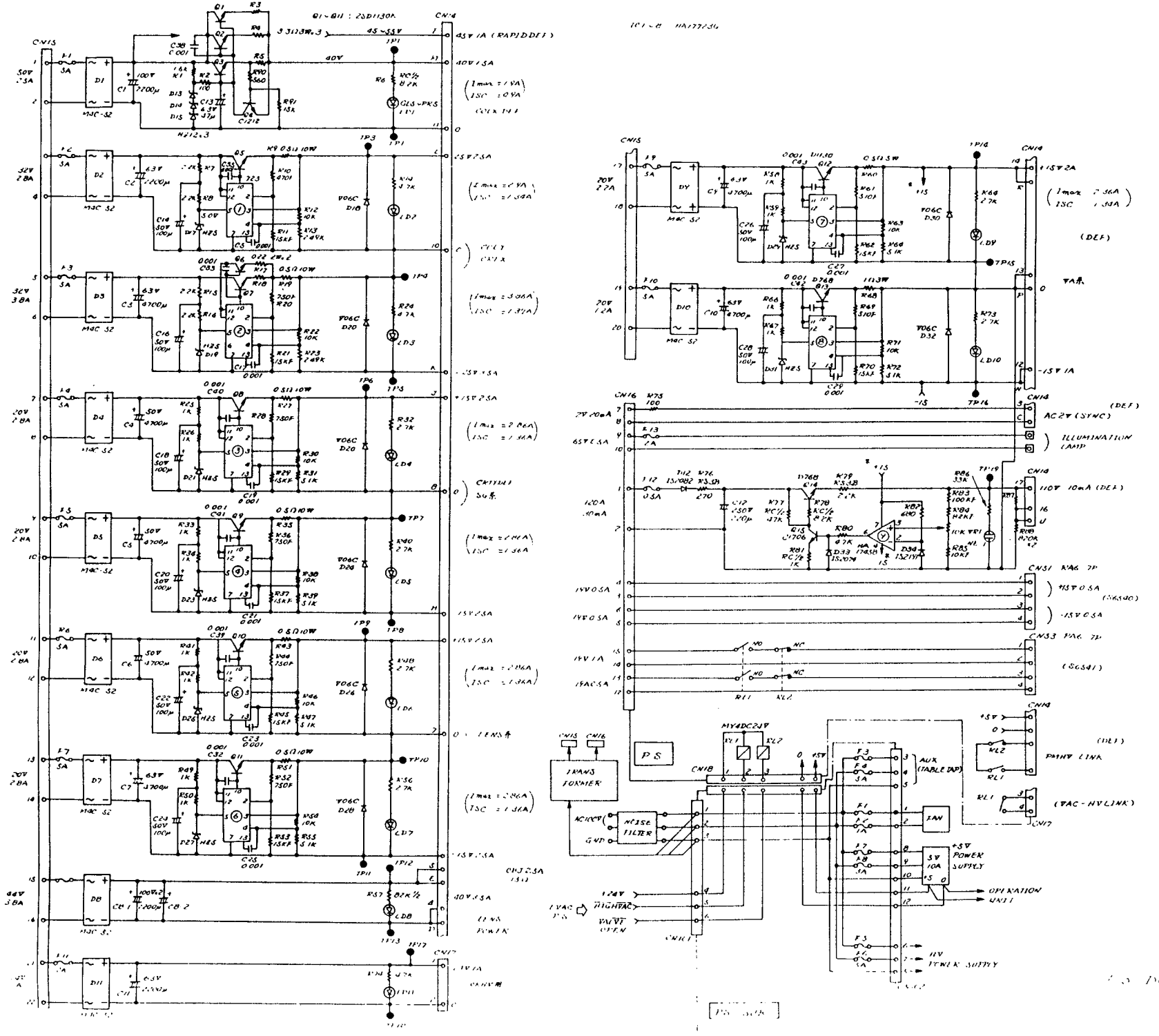
(3) → DEF → SG/ND
VDC

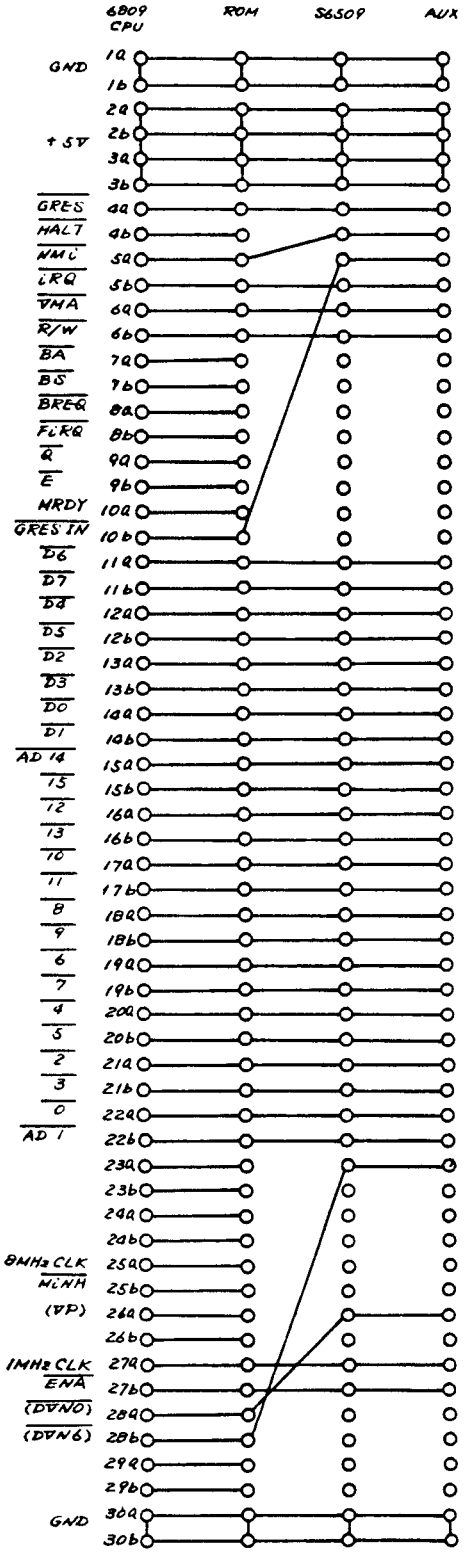
(4) → LENS → LENSC

(5) → LENS

(6) → DEF → VIDEO AMP

1-2 GND WIRING DIAGRAMS





1- 4 MOTHER BOARD WIRING

DATA DISPLAY BLOCK

OPERATION PANEL

OPTION BUFFER

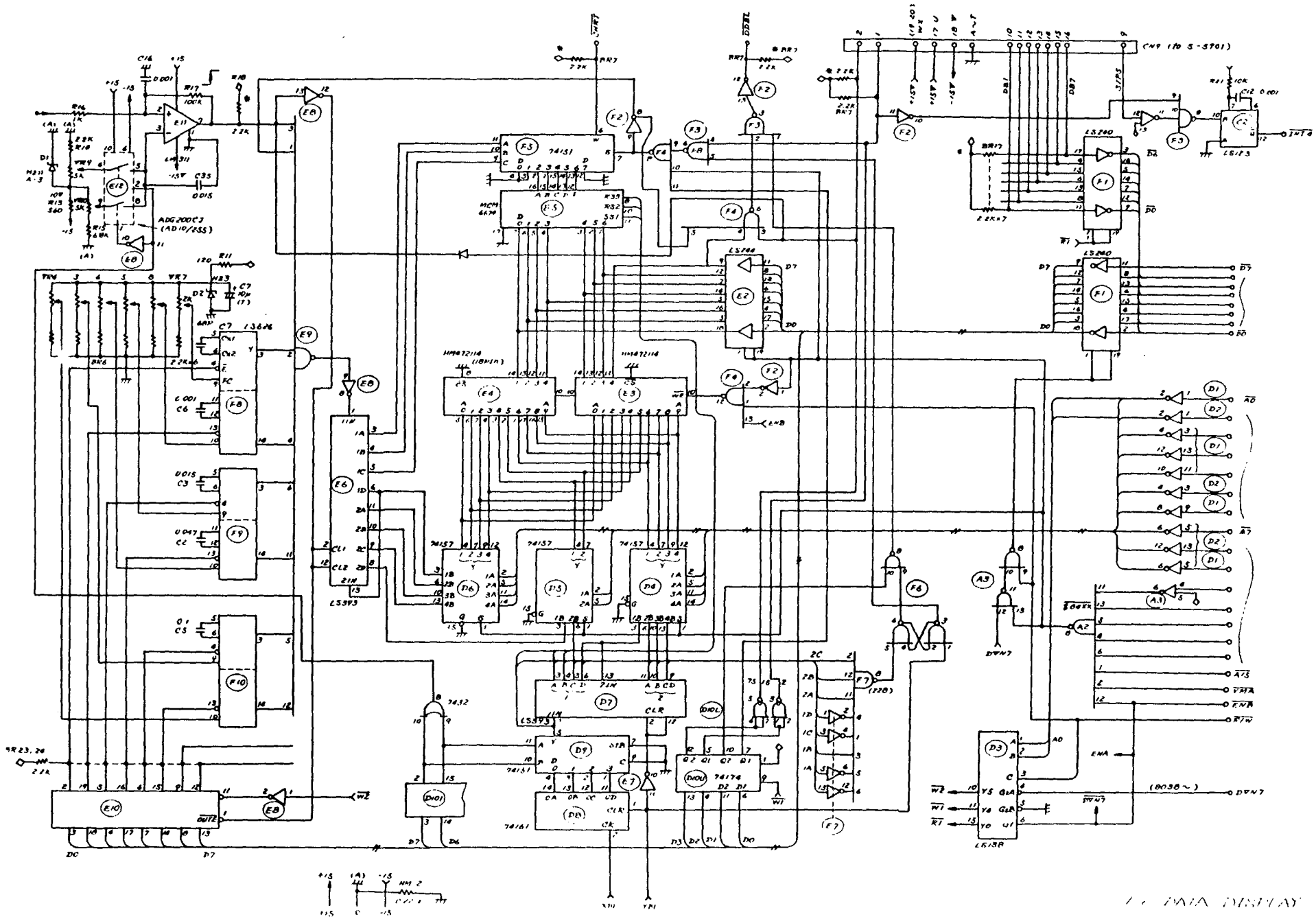
INT. FECT

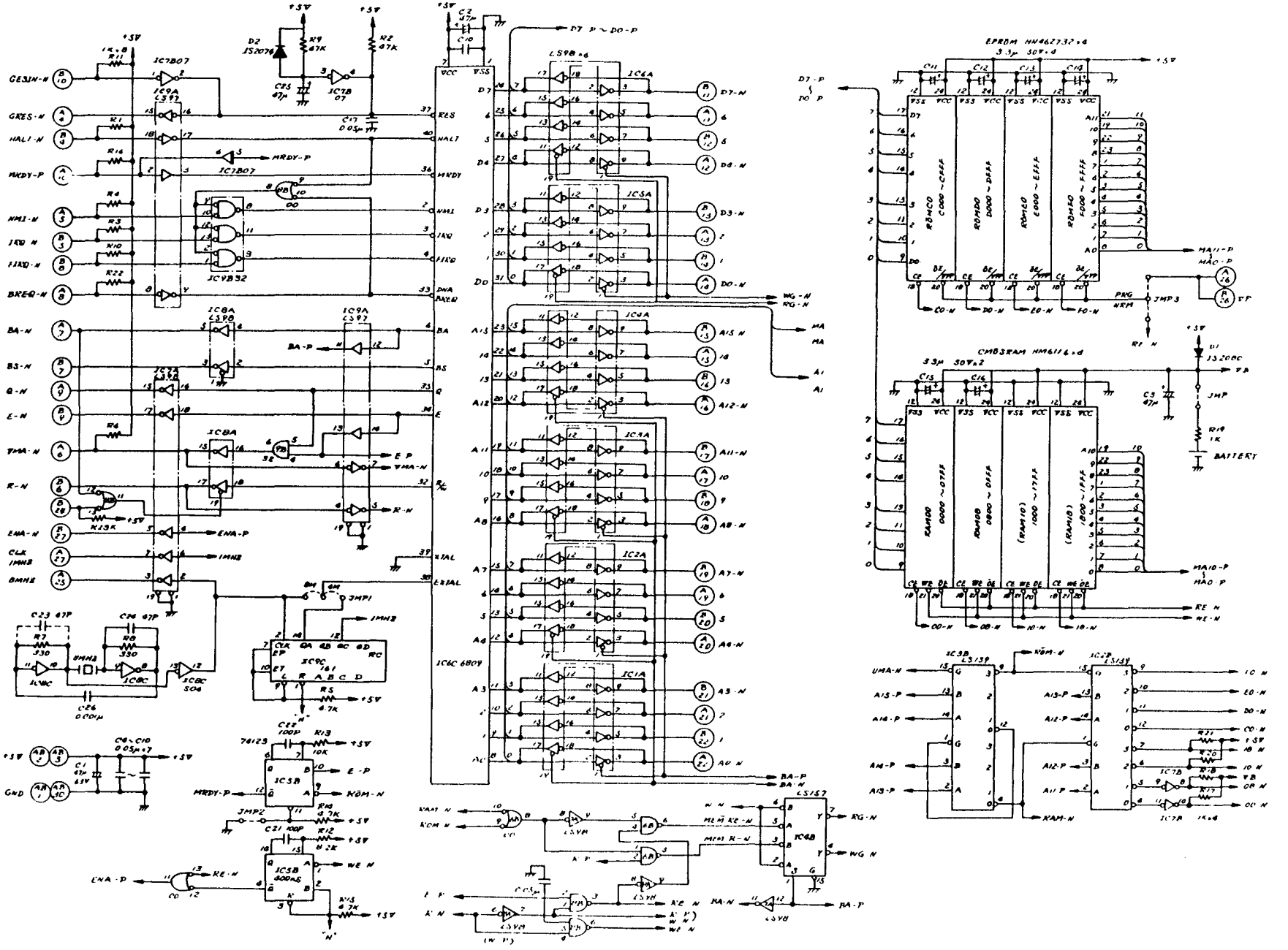
AUTO RESET

MP/STAGE/TIMER

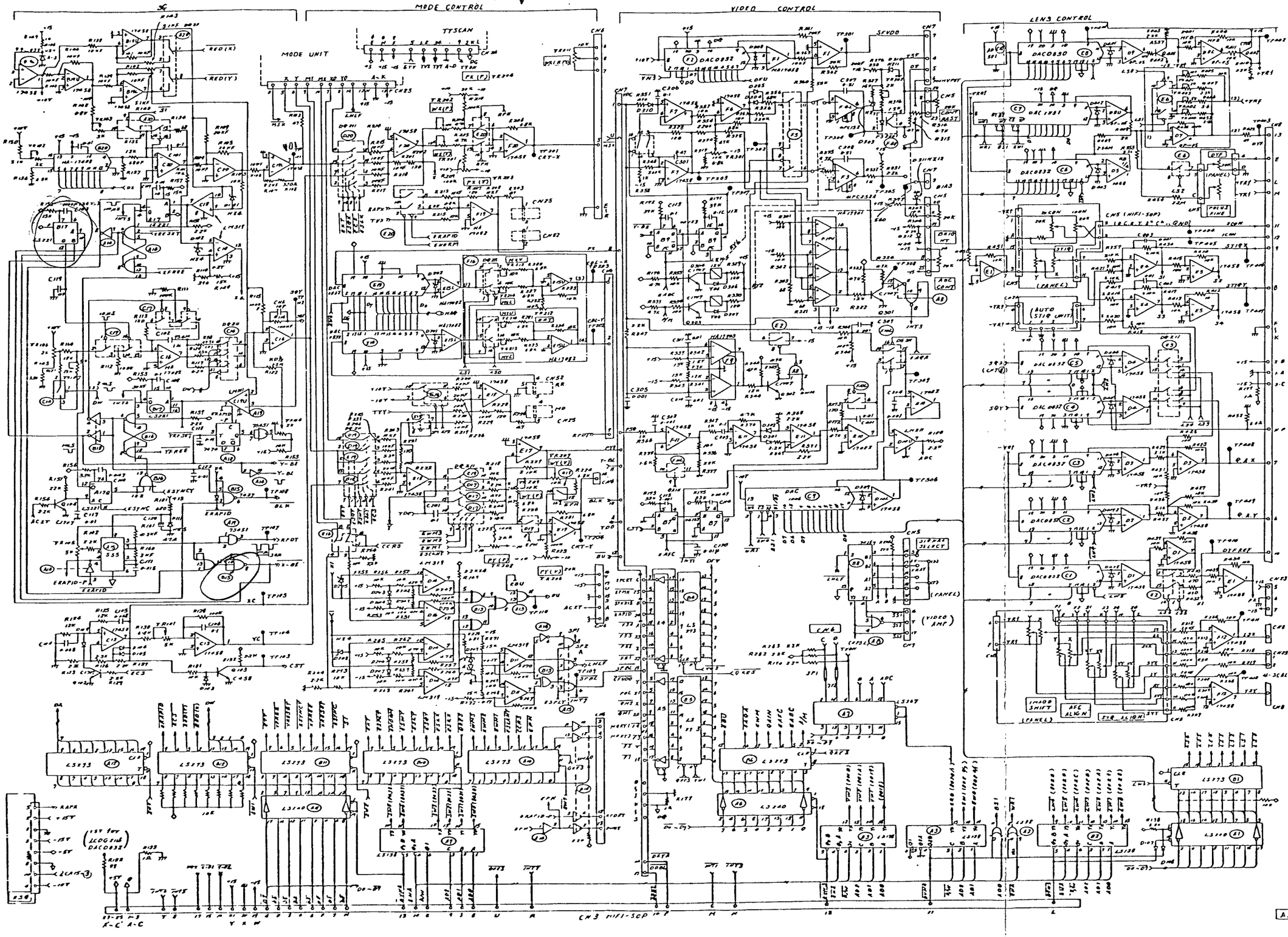
PANEL CONT

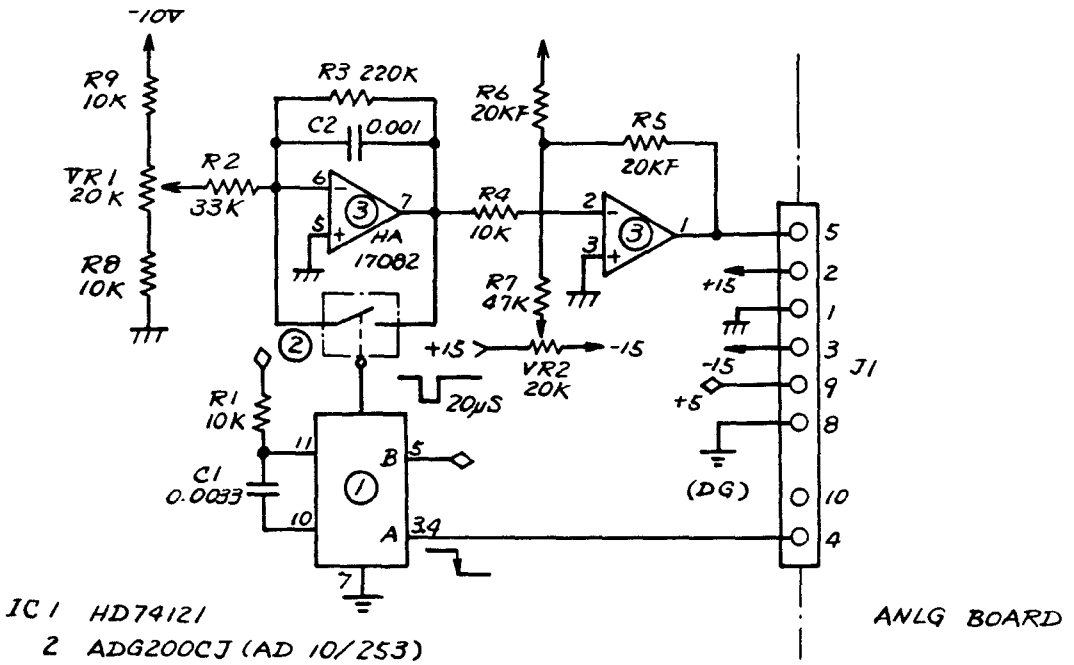
D G OPERATION UNIT




EPROM HN462732×4
CMOSRAM HM6116×4
IC6C 6809
IC9C 161
IC8C 504
IC8B LS138
IC7B LS139
IC4B LS157
IC8B 8048
BATTERY
GND

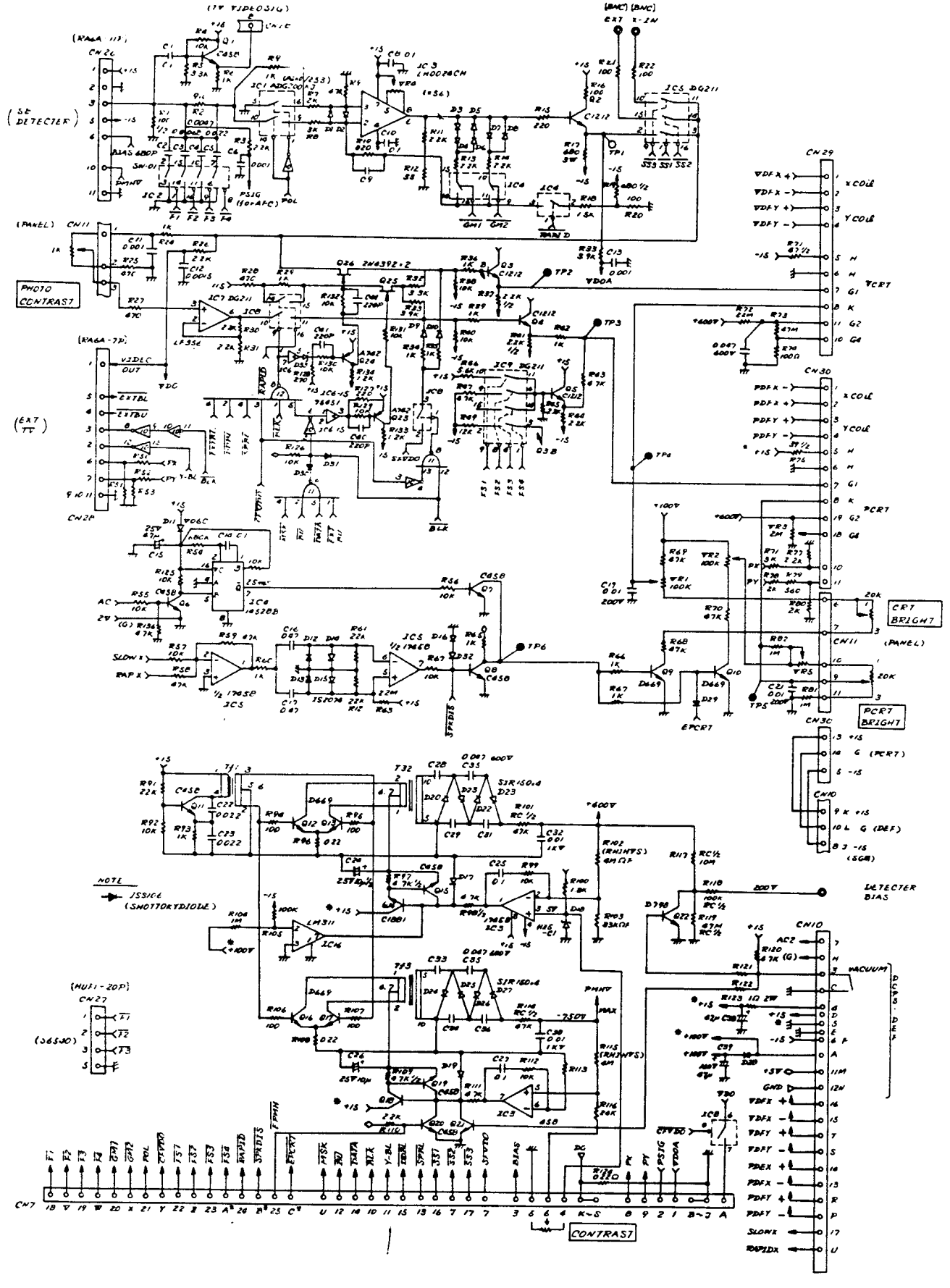
1-7 CPU BOARD


MODE CONTROL
VIDEO CONTROL
LENS CONTROL
MODE UNIT
TTYSCAN
(PANEL)
(VIDEO AMP)
(LENS)
(AUTO STOP LIMIT)
(FOCUS FINE)
(ZOOM)
(IRIS)
(TILT)
(PAN)
(ZOOM)
(FOCUS

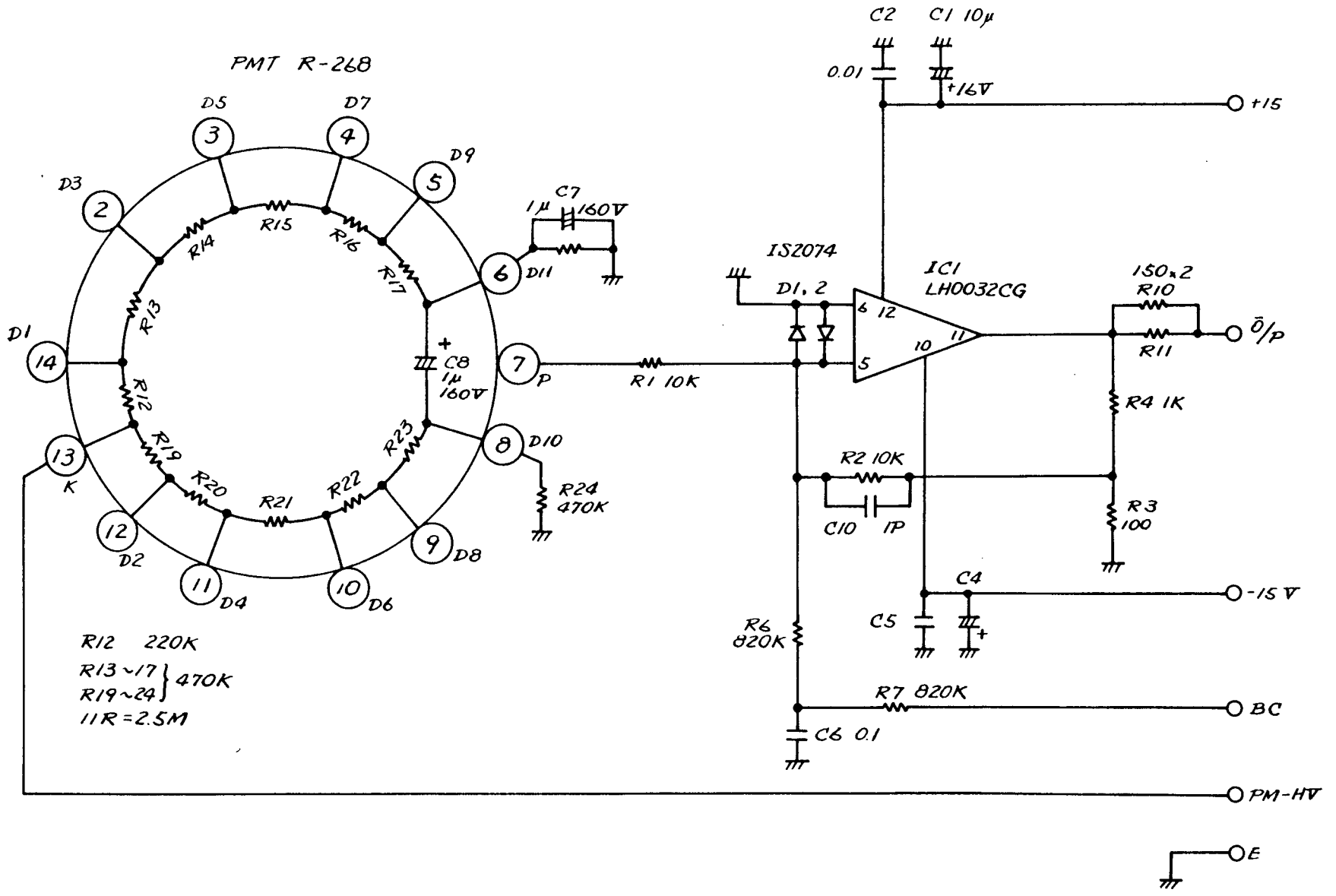


IC 1 HD74121
2 ADG200CJ (AD 10/253)

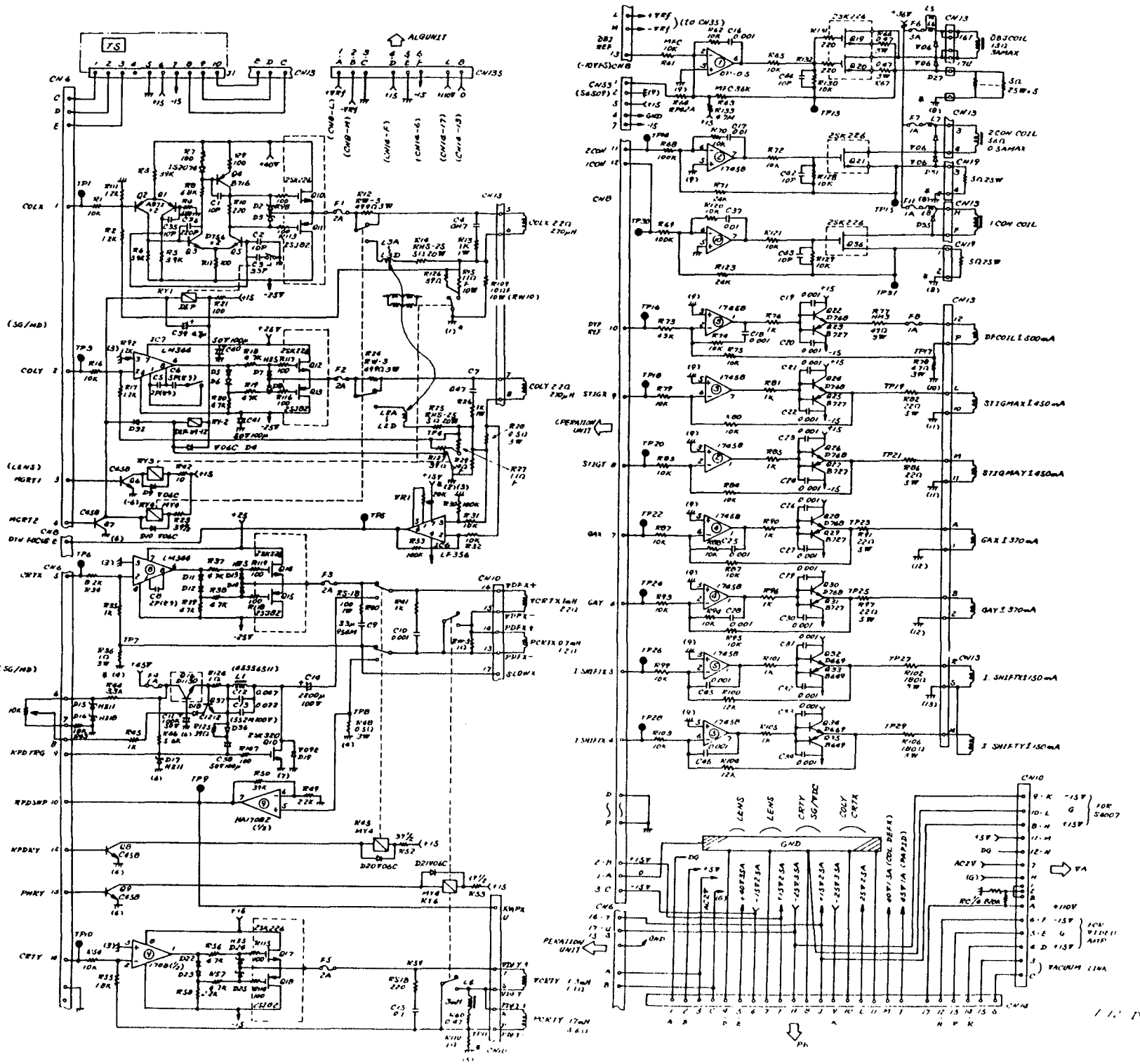
1-9 RAPID SWEEP GENERATOR



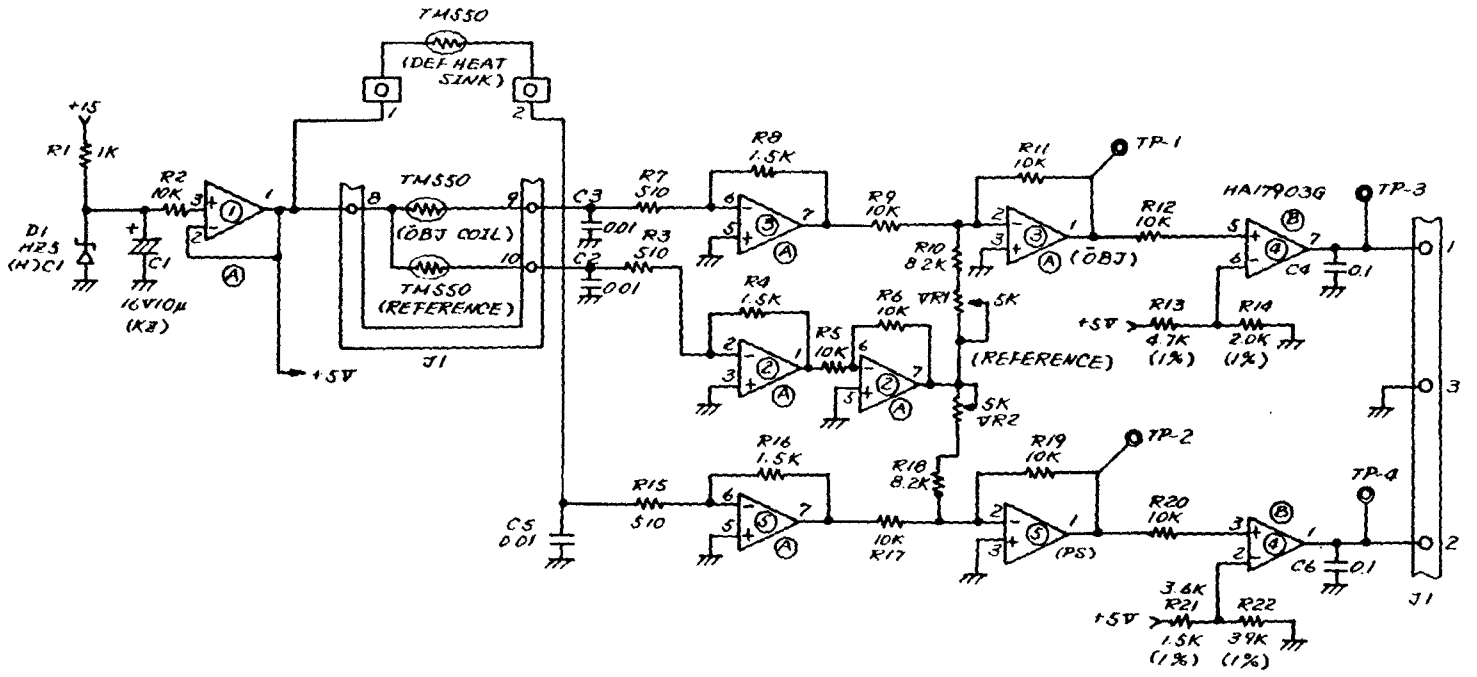
1-10 VIDEO AMP


PMT R-268
D5
D7
D9
D3
D1
D11
D10
D2
D4
D6
D8
K
P
C7 1μ 160V
C8 1μ 160V
R1 10K
R2 10K
C10 1P
R3 100
R4 1K
R10 150×2
R11
R12 220K
R13~17 470K
R19~24 470K
11R=2.5M
R24 470K
R6 820K
R7 820K
C6 0.1
C4
C5
C2 0.01
C1 10μ +16V
IS2074
D1, 2
IC1 LH0032CG
+15
-15V
O/P
BC
PM-HV
E

I-11 HEAD AMP



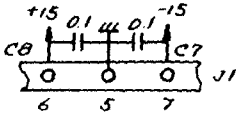
DEF/LENS POWER SUPPLY



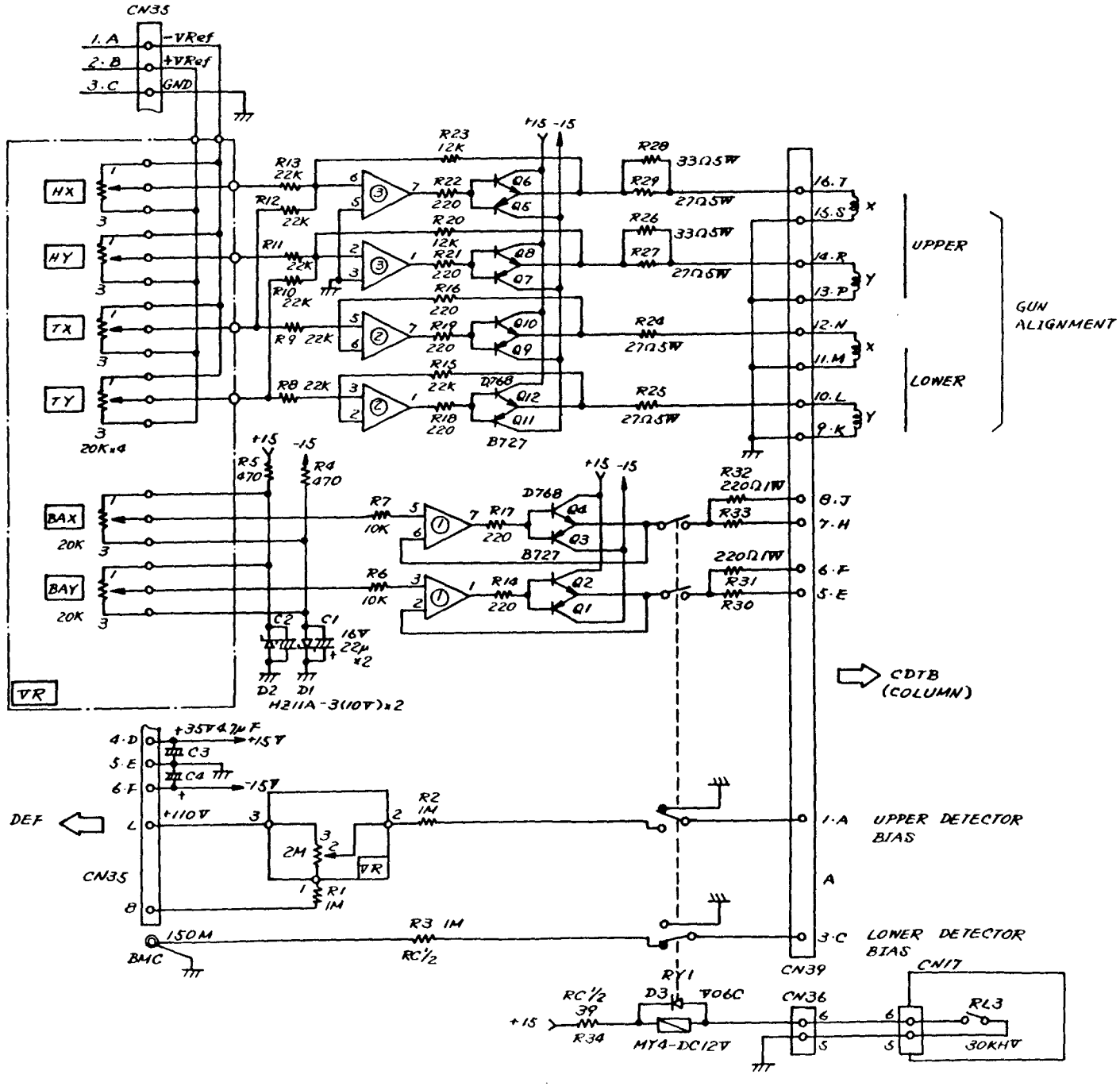
TP3 : OBJ COIL
OVER HEAT ≃ 5V
COOL ≃ 0~1.5V

TP4 : HEATSINK
OVER HEAT ≃ 5V
COOL ≃ 0~3.6V

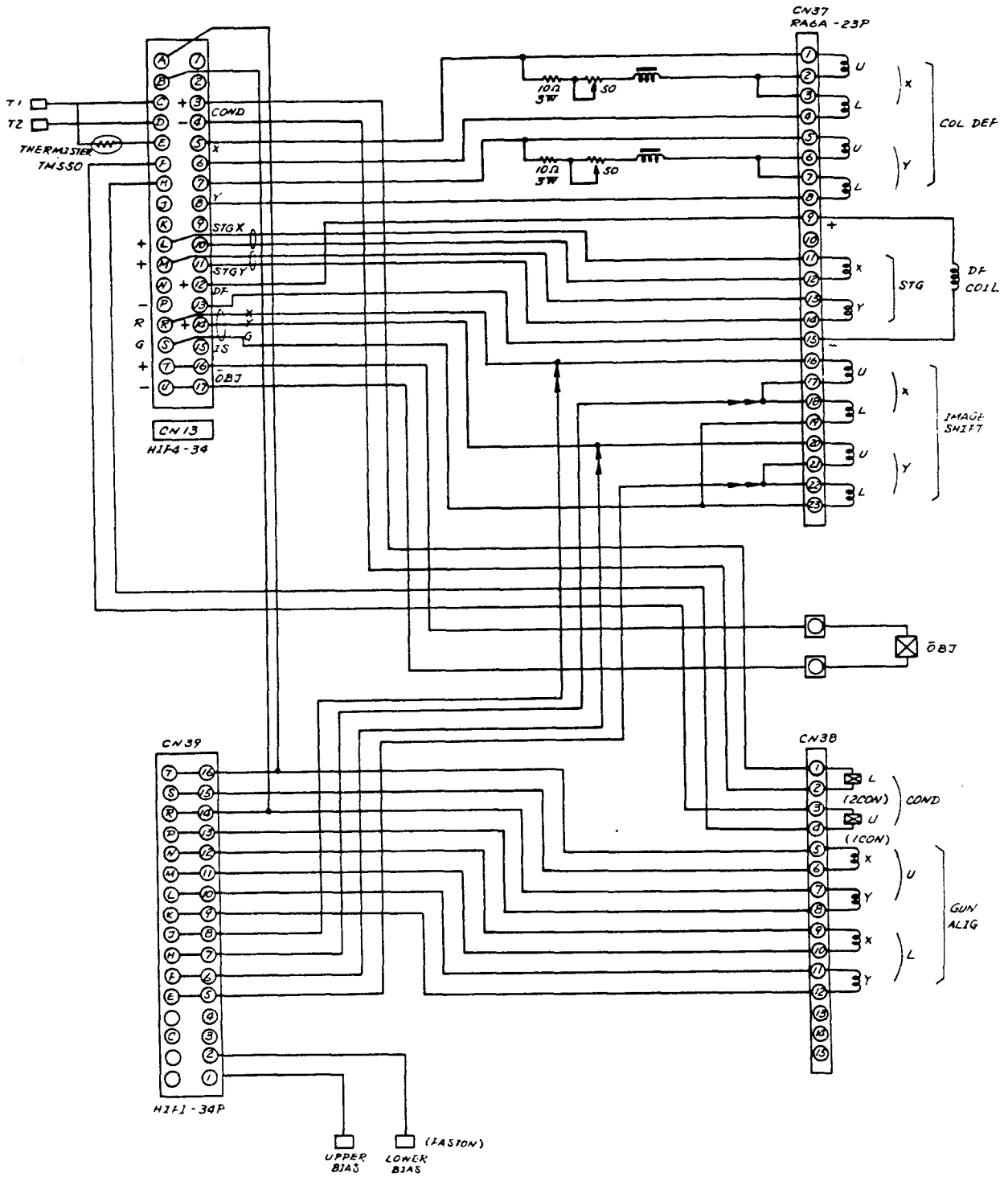
IC1~4 : HA17082PS



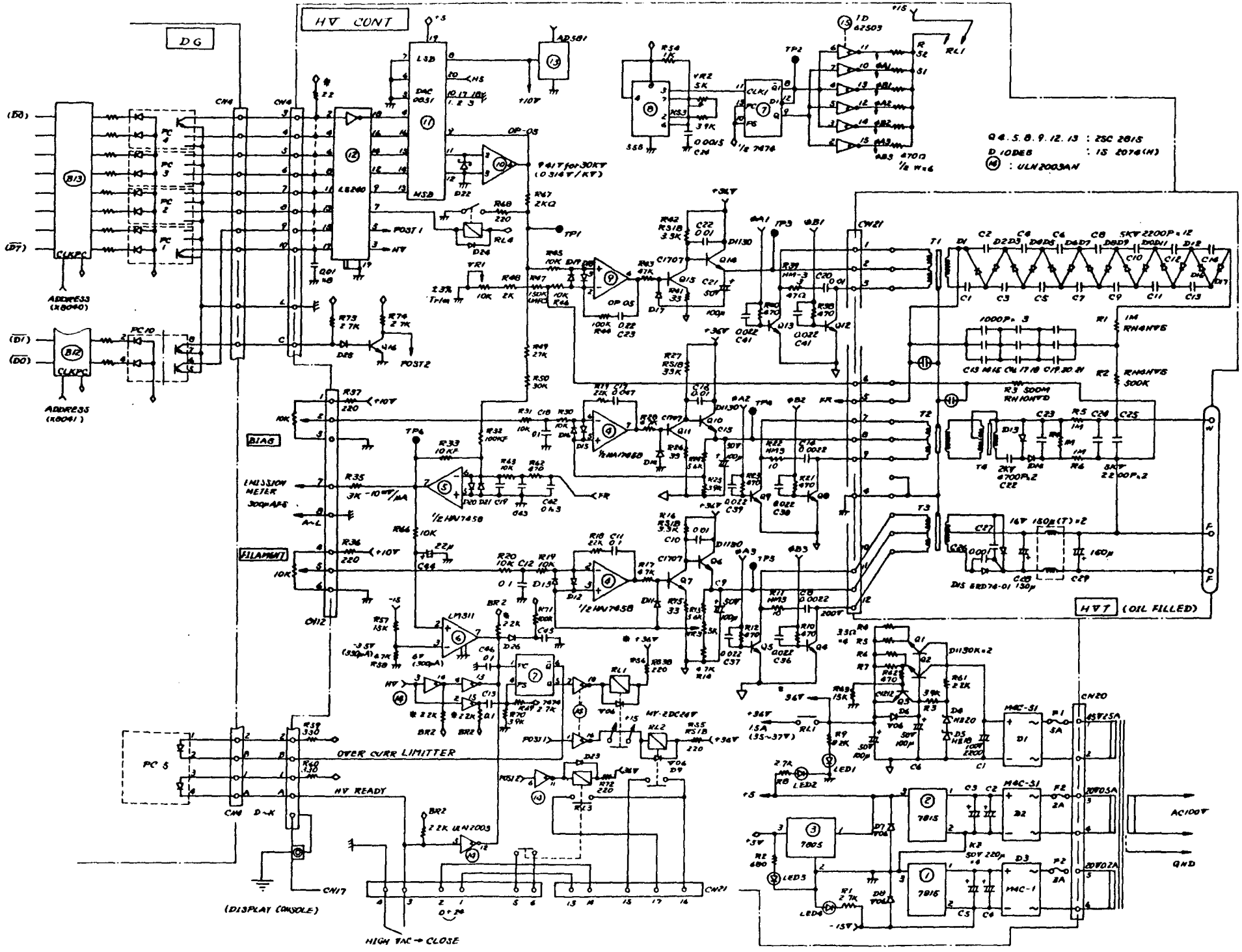
1-13 THERMISTER UNIT



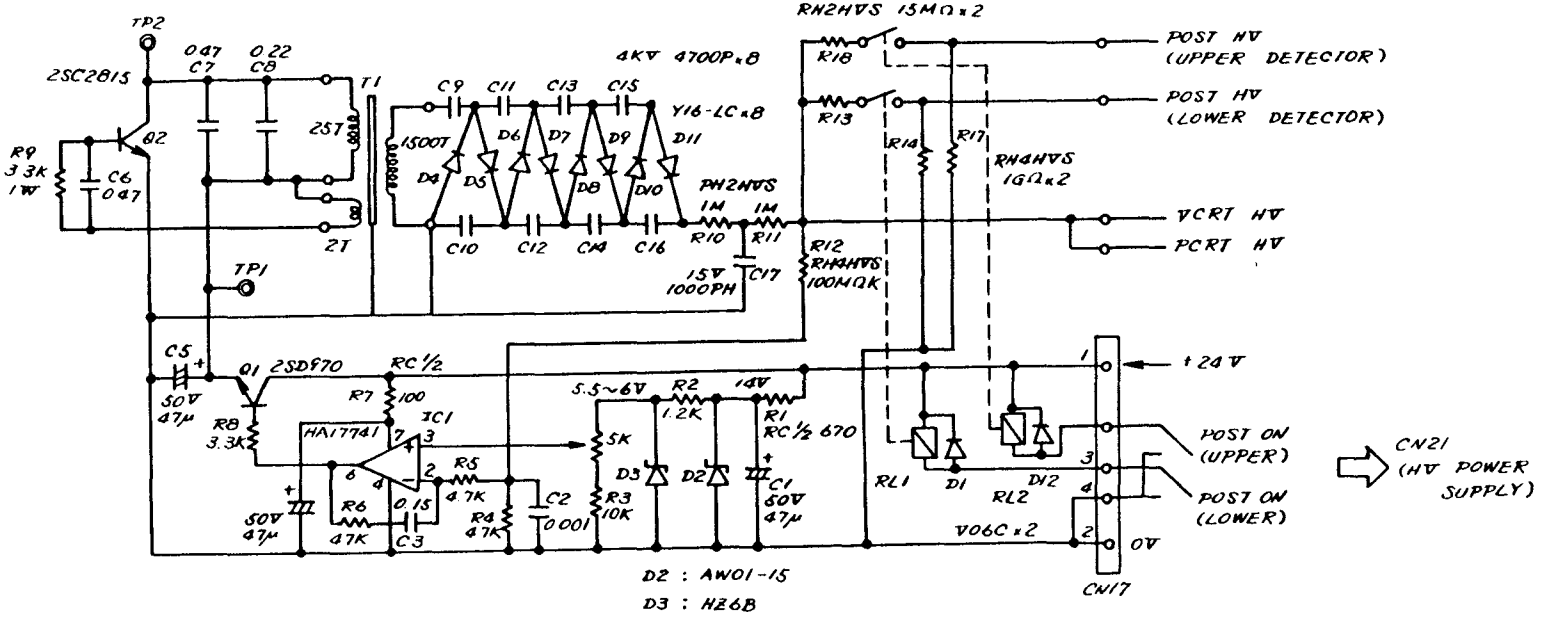
1-14 ALIGNMENT UNIT



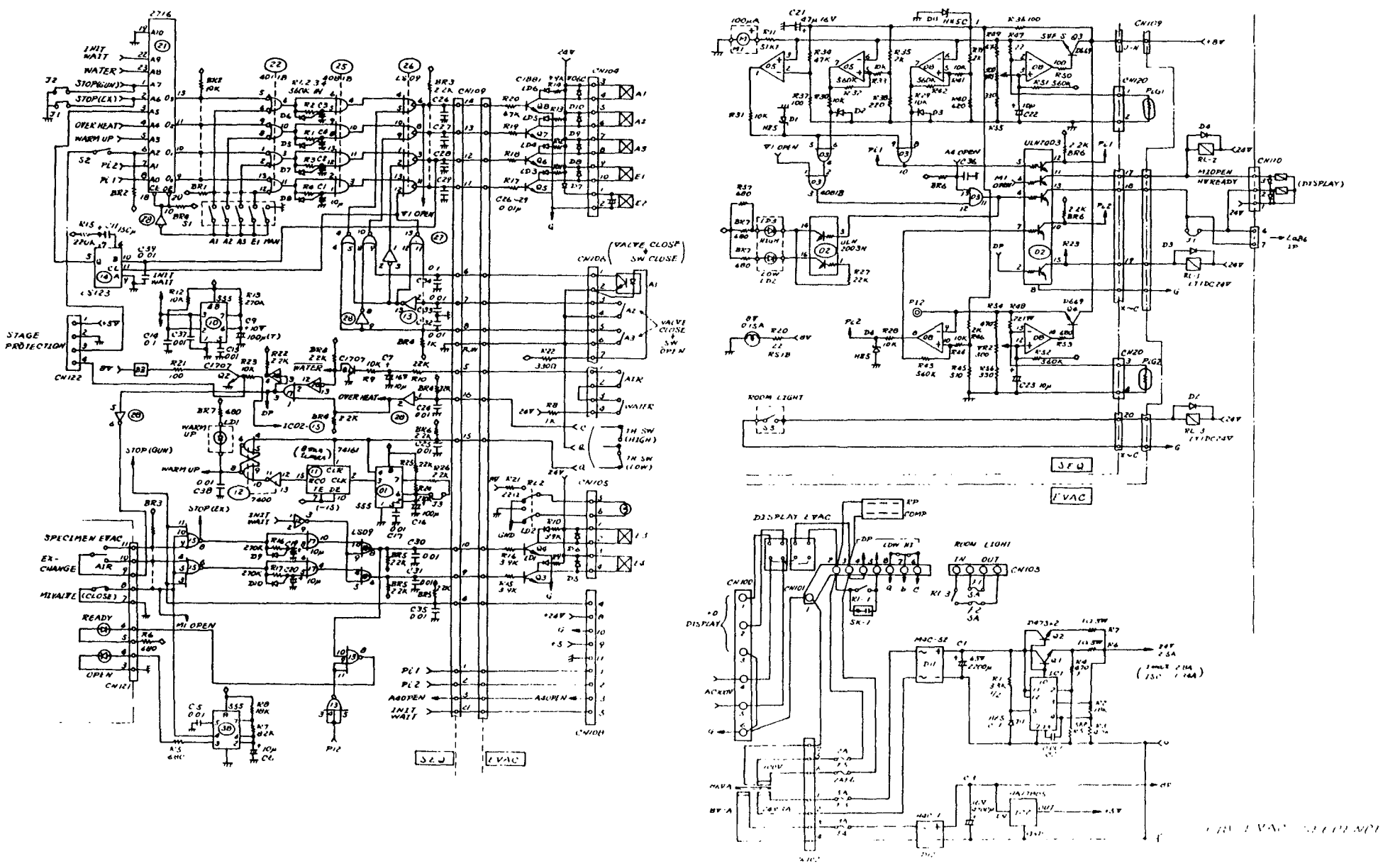
I-15 COLUMN DISTRIBUTER

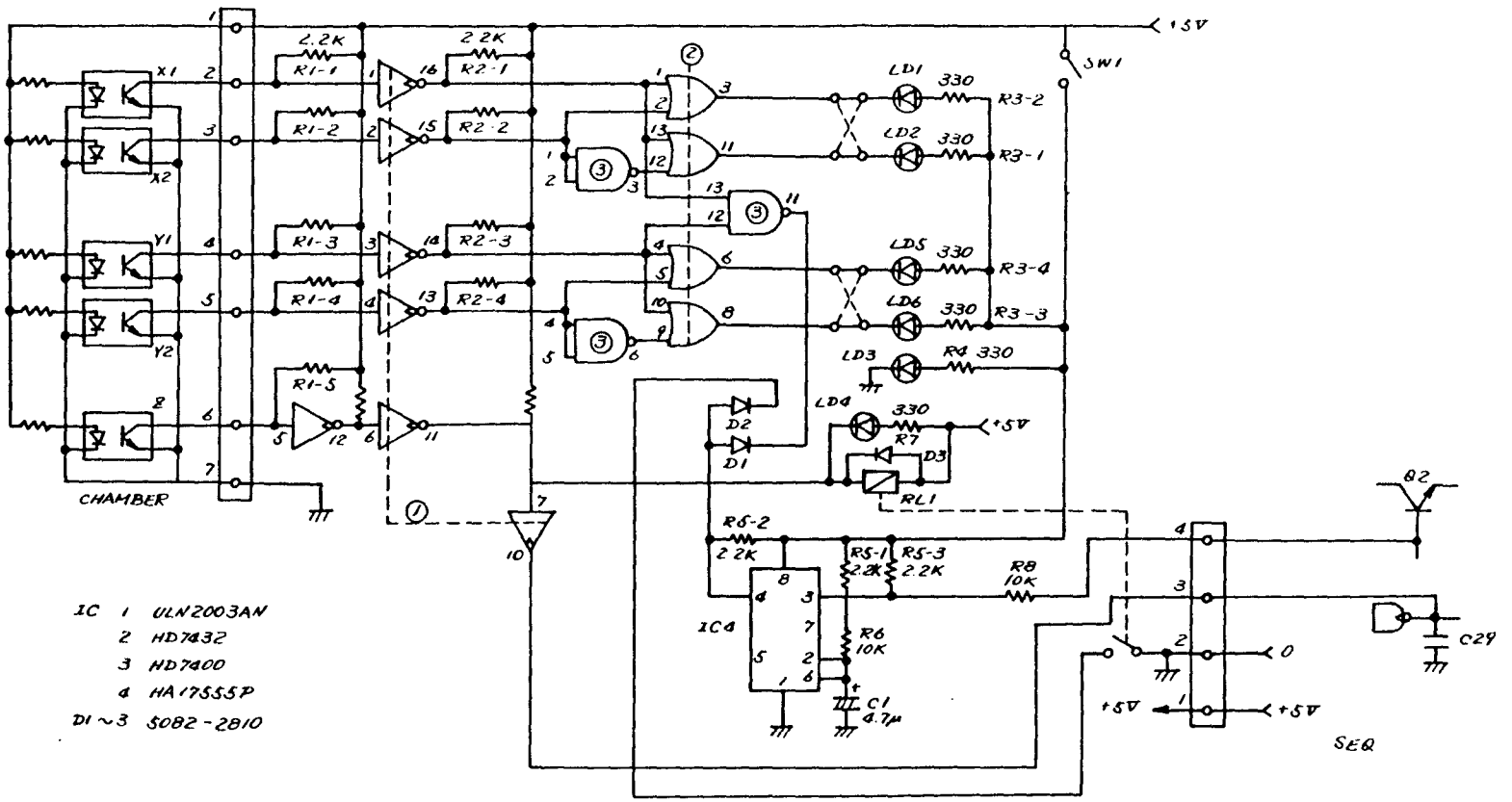


1-16 30KV HV POWER SUPPLY

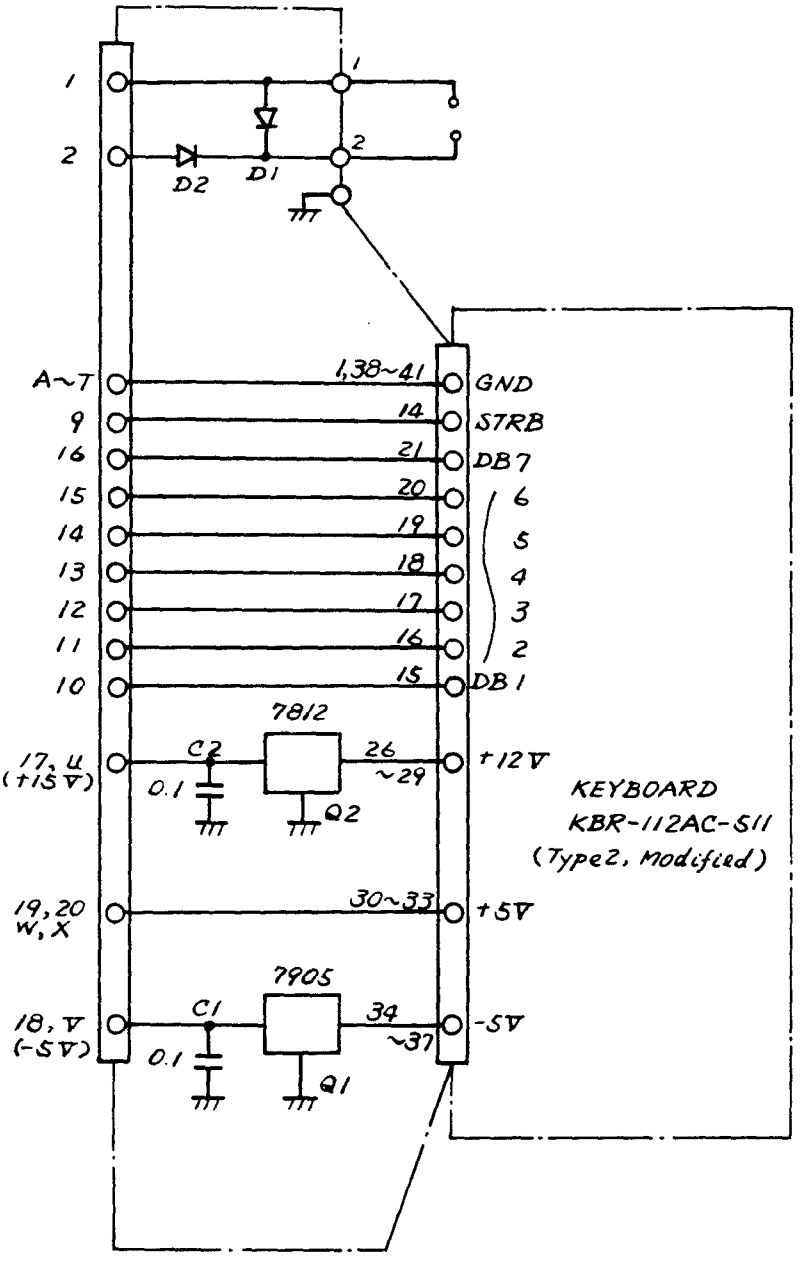


1-17 10KHV POWER SUPPLY

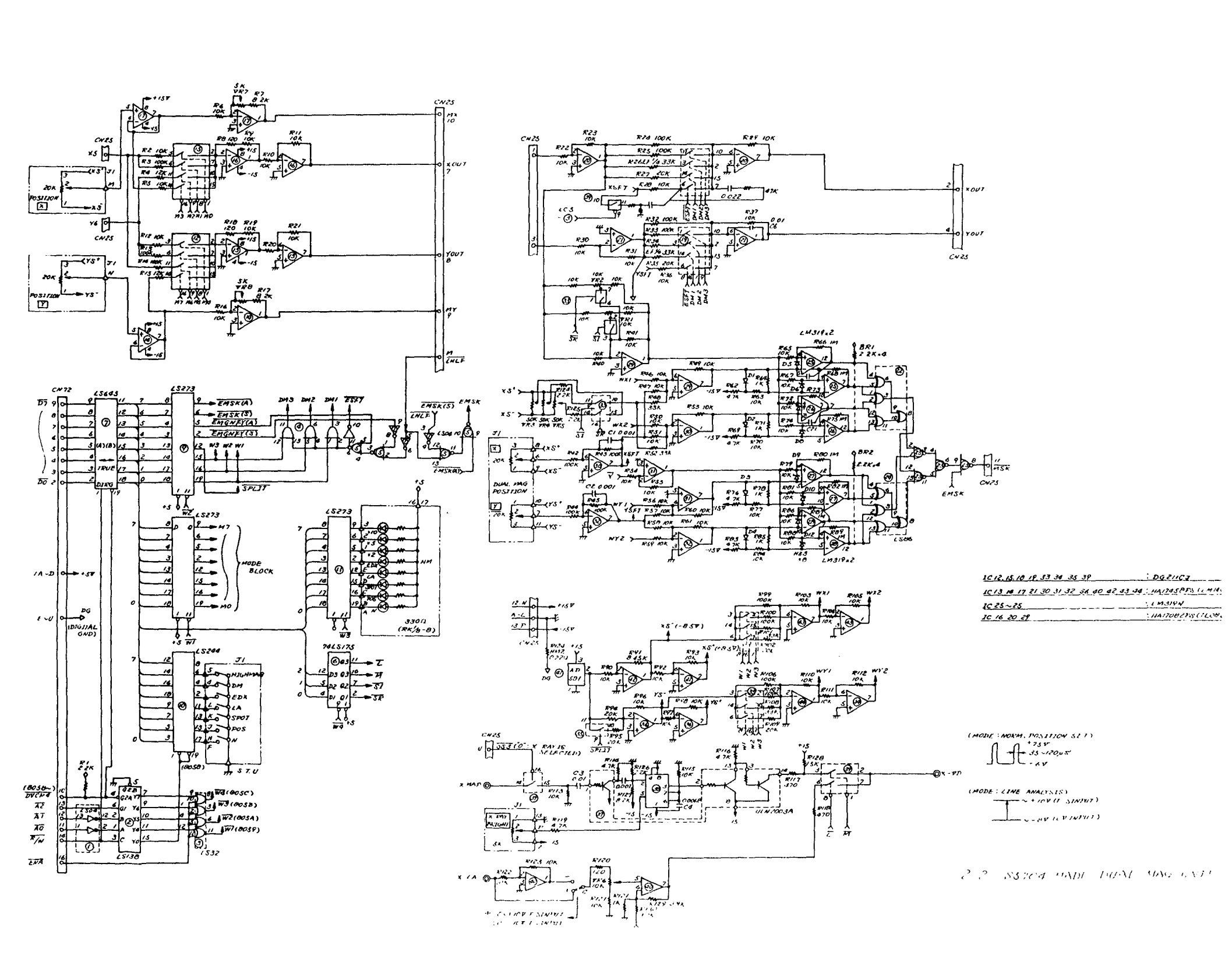

INIT WAIT
WATER
STOP(GUN)
STOP(EX)
OVER HEAT
WARM UP
PL2
PL1
BR2
BR1
BR9
A1 A2 A3 E1 PAN
INIT WAIT
STAGE PROTECTION
CN122
WARM UP
STOP(GUN)
STOP(EX)
SPECIMEN EVAC
EX-CHANGE
AIR
MIVAITE
(CLOSE)
READY
OPEN
M1 OPEN
CN121
PI2
PL1
PL2
A4OPEN
INIT WAIT
A5OPEN
CN108
CN109
CN104
CN105
CN106
CN107
(VALVE CLOSE SW CLOSE)
VALVE CLOSE & SW OPEN
AIR
WATER
1H SW (HIGH)
1N SW (LOW)
SEQ
EVAC
(03), (08) : HA17902
ROOM LIGHT
DISPLAY EVAC
CN100
CN101
CN103
ACKIN
MAVA
BF-A
SEQUENCE

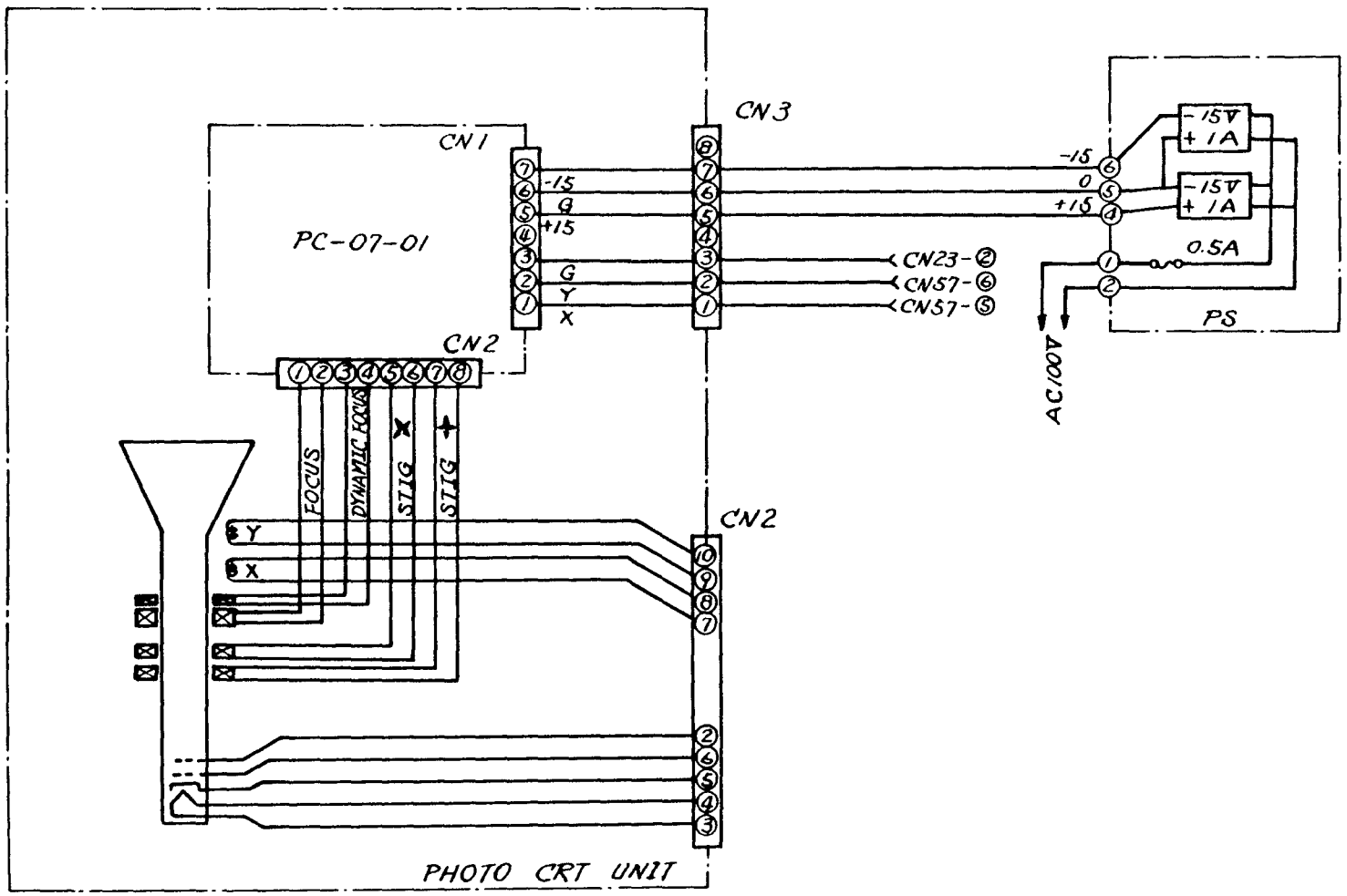


1-19 STAGE LIMITTER

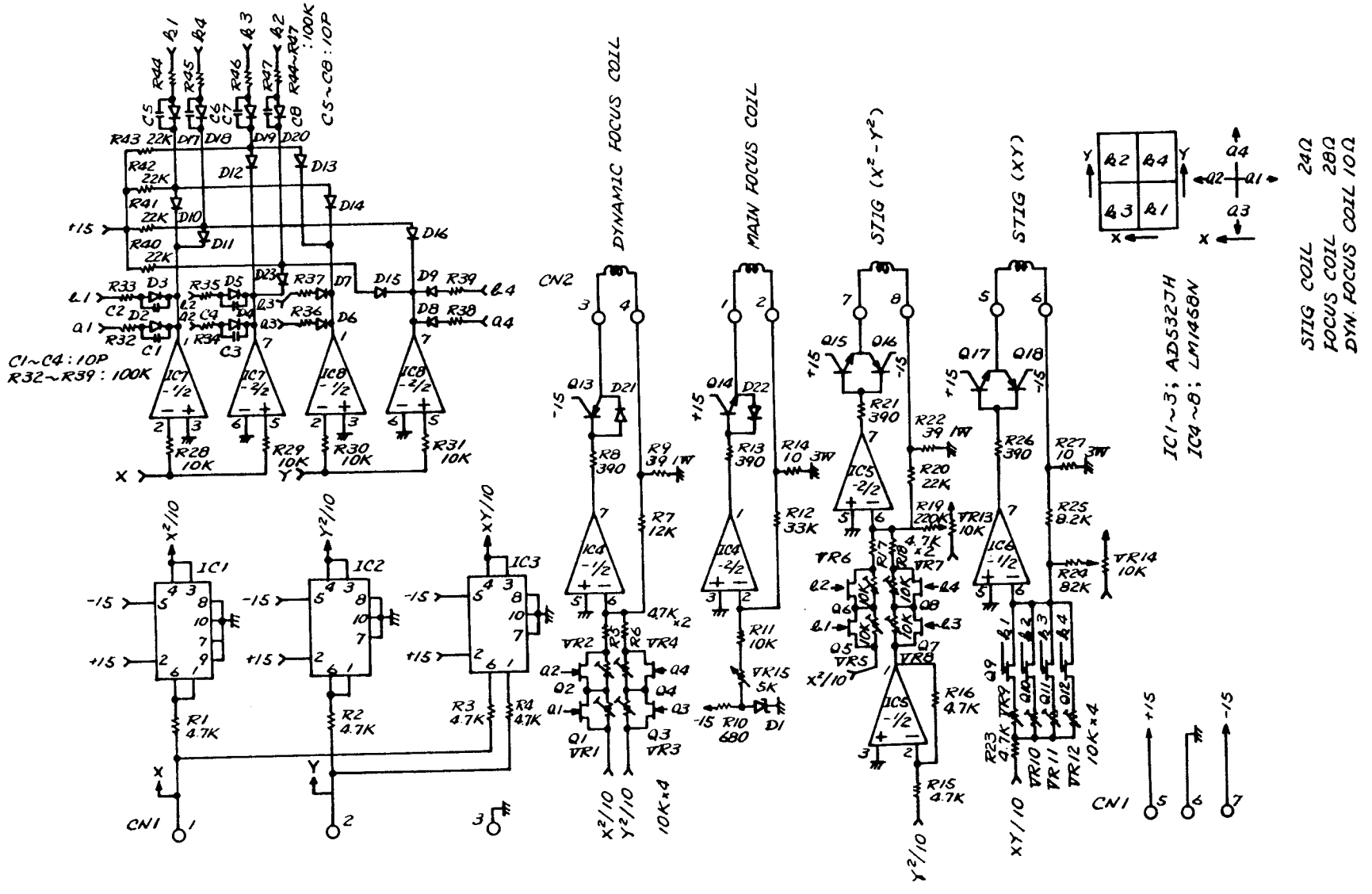


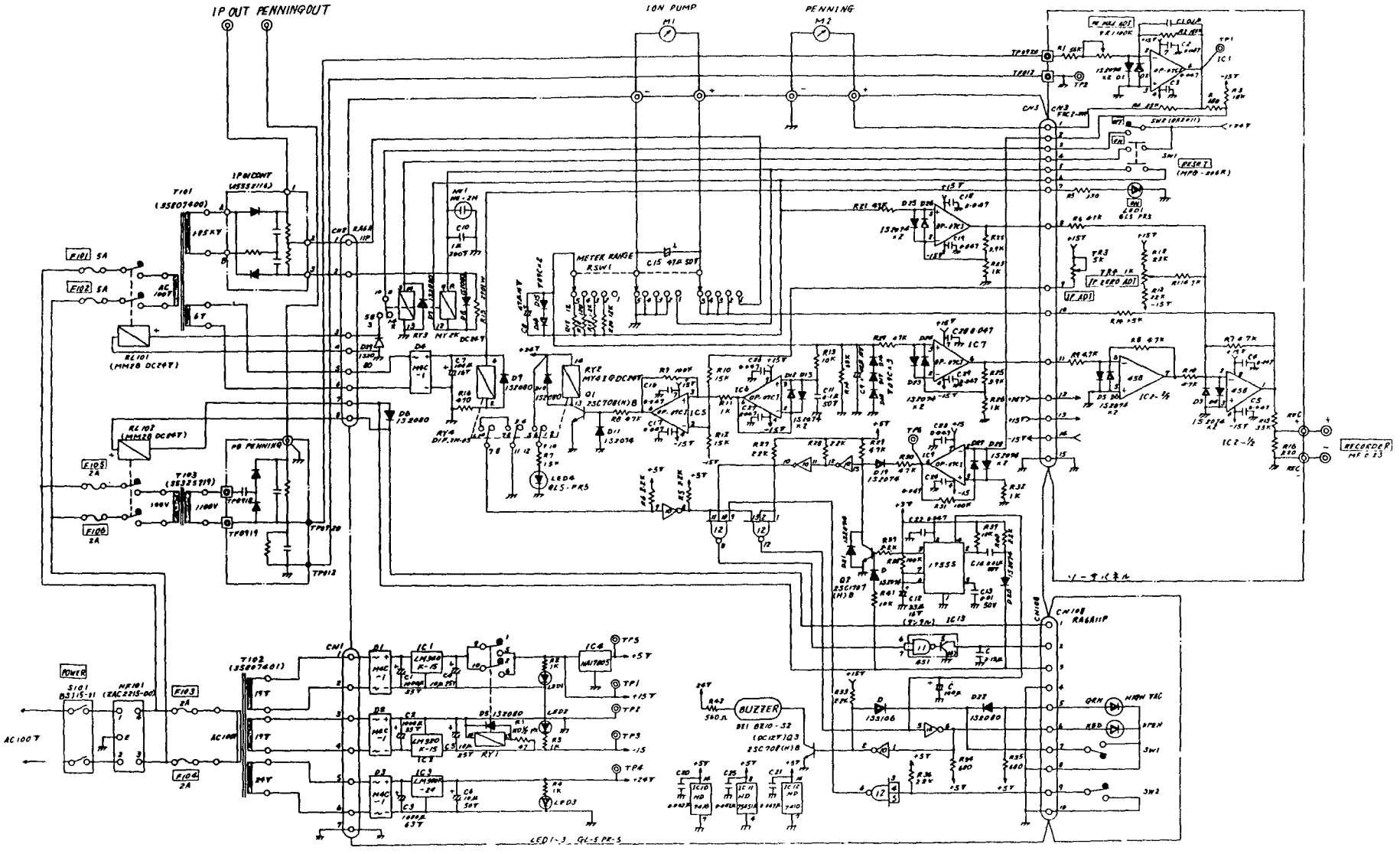
2-1 S-5701 DATA ENTRY KEY BOARD



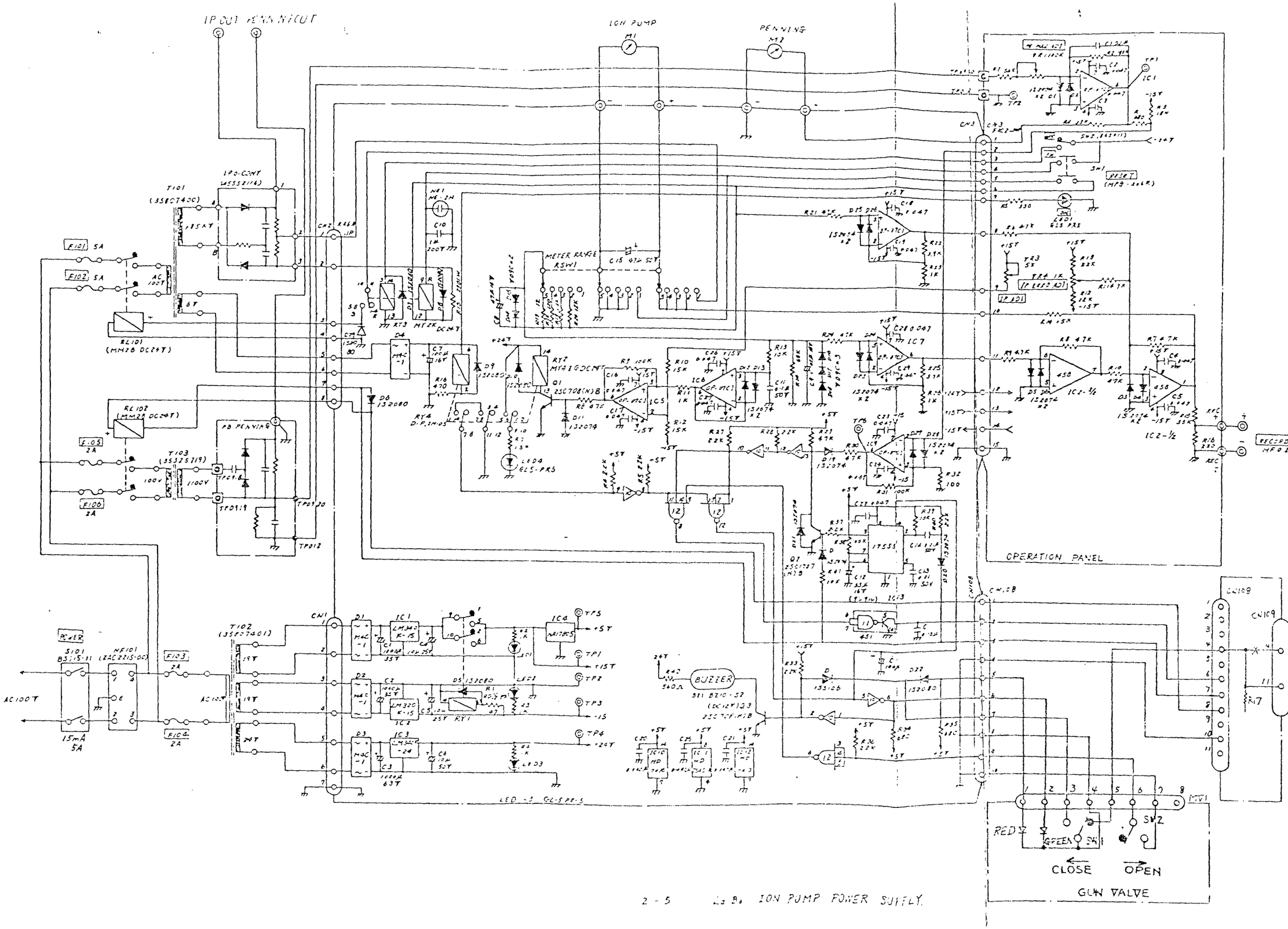


2-3 WIRING DIAGRAM

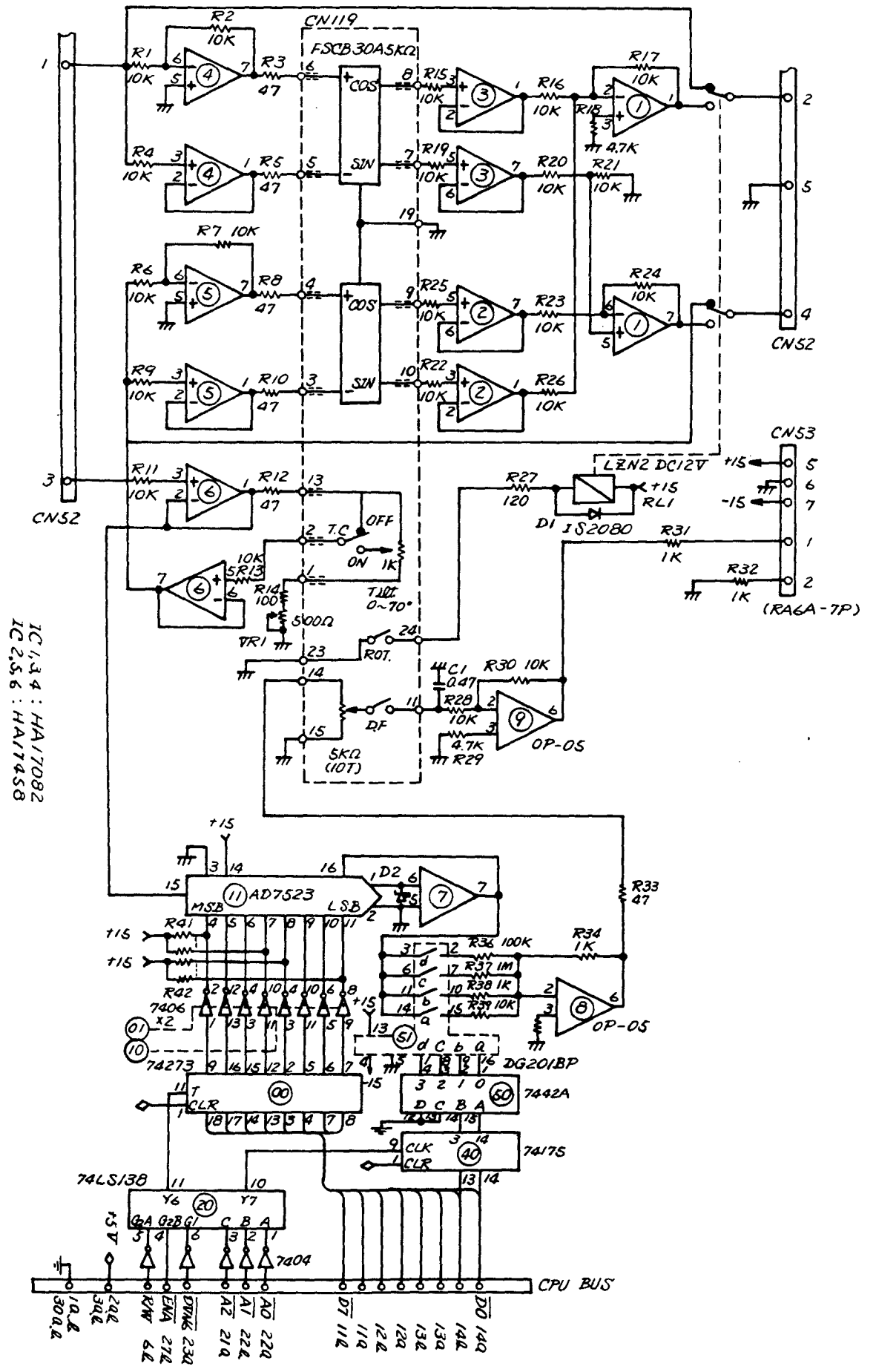

DYNAMIC FOCUS COIL
MAIN FOCUS COIL
STIG (X²-Y²)
STIG (XY)
IC1~3; AD532JH
IC4~8; LM1458N
STIG COIL 24Ω
FOCUS COIL 28Ω
DYN. FOCUS COIL 10Ω
C1~C4 : 10P
R32~R39 : 100K
C5~C8 : 10P
R44~R47 : 100K
CN1
CN2



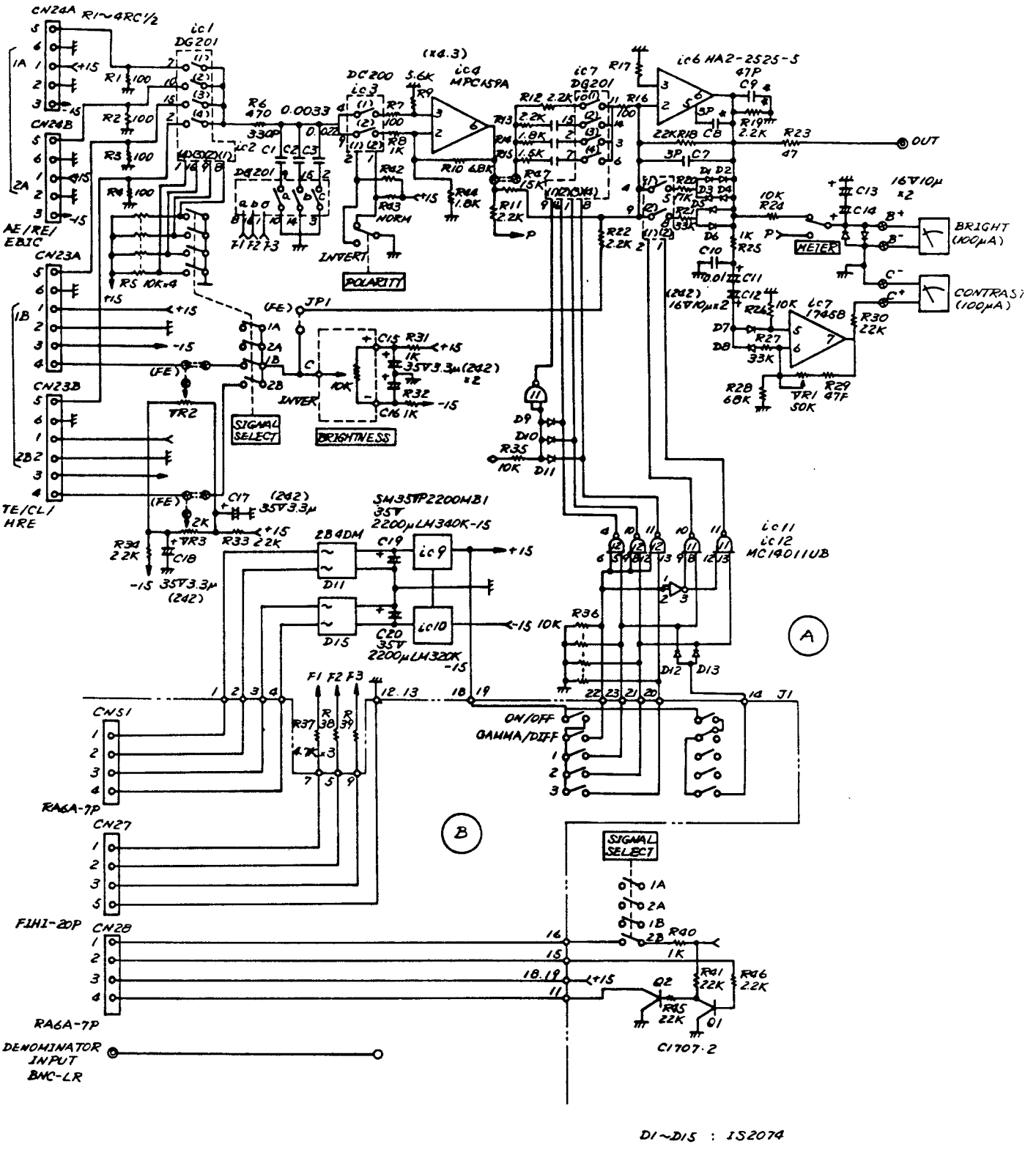
2 - 5 La Ba ION PUMP POWER SUPPLY


ION PUMP
PENNING
METER RANGE
RSW1
OPERATION PANEL
RECORDER
BUZZER
CLOSE
OPEN
GUN VALVE
RED
GREEN
ION PUMP POWER SUPPLY

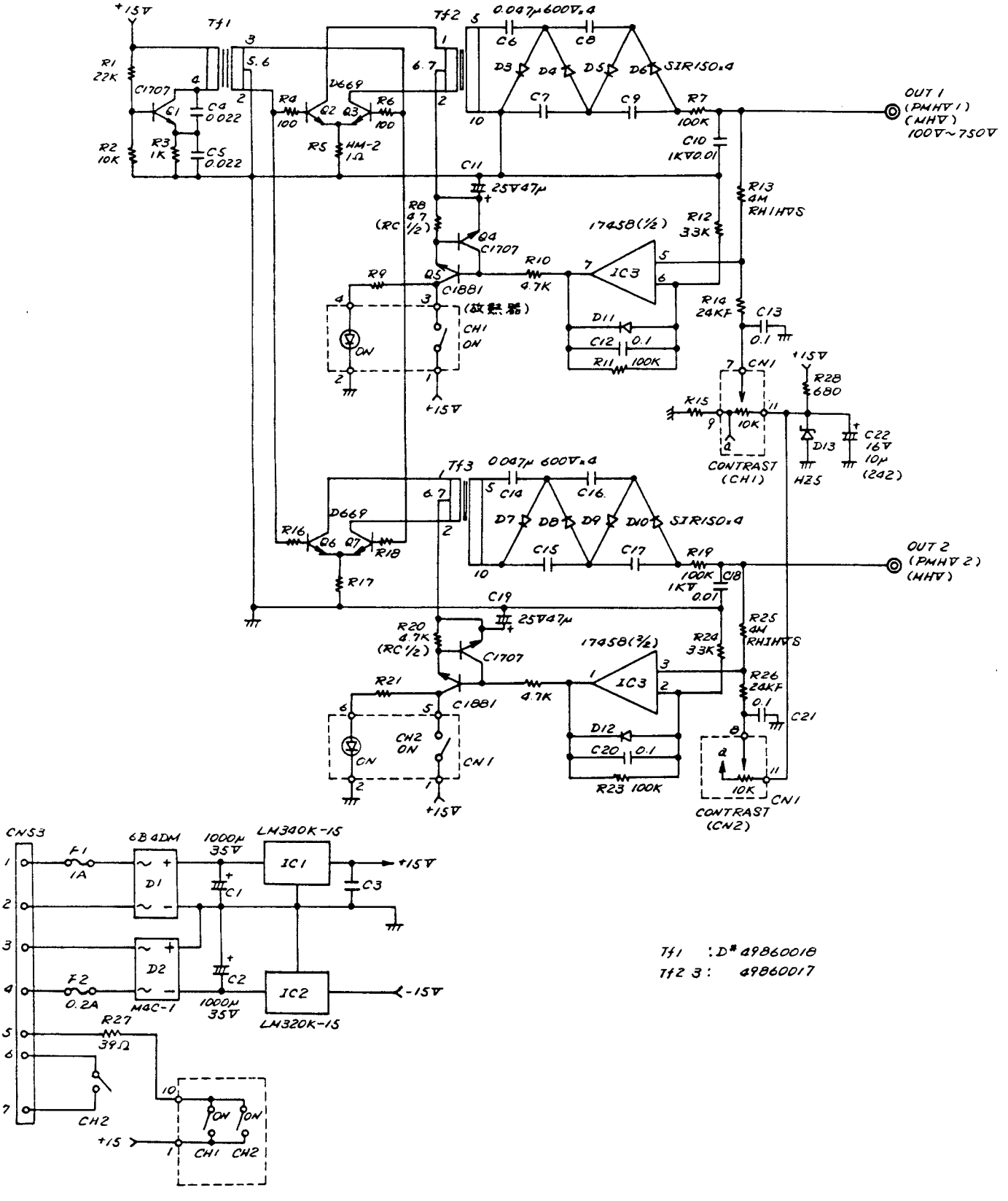
2 - 5



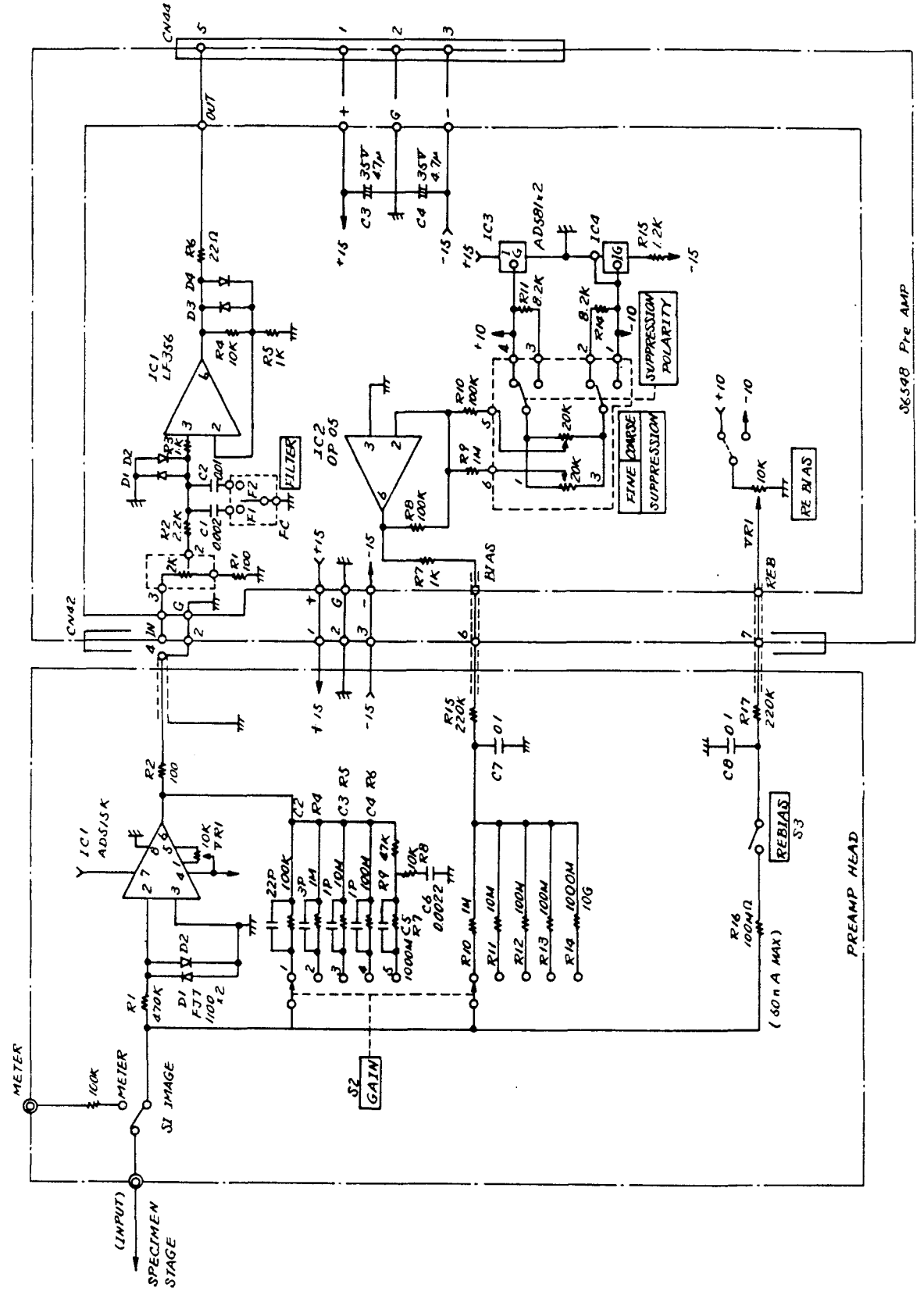
2-6 S-6509 RASTER ROTATION/DYNAMIC FOCUS UNIT



2-7 S-6540 UNIVERSAL VIDEO AMP UNIT



2-8 S-6541 DUAL PMHV SUPPLY



2-9 S-6542 PRE AMP UNIT

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